

SPECTROMETER

PCE-PSR 200



- » **spectral resolution: ± 0.2 nm**
- » **reproducibility: ± 0.5 nm**
- » **accuracy of the chromaticity coordinate (Δx , Δy): ± 0.005**
- » **correlated colour temperature CCT: 1500 ... 100000 K**
- » **illuminance range: 0.1 ... 500,000 lx**
- » **capacitive 5-inch IPS touch screen**
- » **rechargeable 4000 mAh lithium-ion battery**
- » **8 GB internal memory**
- » **PC software**

The high-precision Colorimeter was developed to perform even the most demanding light measurements with the highest accuracy and reliability. Thanks to a spectral resolution of ± 0.2 nm and a reproducibility of ± 0.5 nm, it provides precise and consistent measurement results. The remarkable accuracy of the chromaticity coordinate (Δx , Δy) of ± 0.005 enables exact colour representation and is therefore ideal for applications in light and colour analysis.

With a wide illuminance range of 0.1 to 500000 lux and an accuracy of ± 0.1 lux, the Colorimeter is suitable for both weak light sources and extremely bright environments. The measurement of the correlated colour temperature (CCT) from 1500 K to 100000 K with a deviation of ± 0.6 % enables a detailed assessment of the light quality and colour temperature.

The Colorimeter is not only technically powerful but also designed to be user-friendly. The capacitive 5-inch IPS touch screen offers intuitive operation and ensures that all measurement data is clearly displayed, even in difficult lighting conditions. With the integrated rechargeable 4000 mAh lithium-ion battery, the device guarantees long operating times so that even extensive measurements can be carried out without any problems. The internal memory of 8 GB offers sufficient space for a large amount of measurement data which can be saved directly to the device.

PC software is available for seamless data processing and advanced analysis functions.

Specification

| Light | |
|-----------------------|-----------------|
| Measuring range up to | 5 ... 500000 lx |
| Resolution | 0,1 lx |
| Accuracy | ±0.1 lx |

| General technical data | |
|---|--|
| Display Typ | LCD touchscreen |
| Display size | 5 Inch |
| Display resolution | 480 x 854 |
| Storage medium | Internal memory |
| Storage capacity | 8 GB |
| Memory capacity Additional information | approx. 5000 data records |
| Classification | Class A |
| Data interface | USB, BLE switch |
| Operating time | 20 h |
| Automatic shutdown adjustable | 2 ... 60 min. |
| Automatic switch-off can be deactivated | Yes |
| Reproducibility | ±0.5 nm |
| Color spaces | CIE1931, CIE1960, CIE1976, SDCM, CRI1, CRI2, TM30 (Distribution of Fidelity), TM30 (Change Distribution), TM30 (Rg/Rf) |
| Wavelength range | 350 ... 800 Nm |
| Light parameters | CCT (K), Illuminance (lx), Coordinate-x, y, Coordinate-u, v, Coordinate-u', v', PeakWave (nm), CentralWave (nm), Dominant Wave (nm), CentroidWave (nm), HalfWidth (nm), Dark signal, Peak signal, Purity (%), IntegTime (ms), SDCM, Ra, Ravg, R1-R5, R6-R10, R11-R15, duv, R-ratio (%), G-ratio (%), B-ratio (%), Irradiance (W/m ²), Candela (fc), S/P, CIE1931-X, CIE1931-Y, CIE1931-Z, CQS, Rg, Rf, YPFD (umol/m ² /s), PFD (umol/m ² /s), PPF400-700 (umol/m ² /s), PPFduv (umol/m ² /s), PPFDb (umol/m ² /s), PPFdg (umol/m ² /s), PPFdr (umol/m ² /s), PPFdfr (umol/m ² /s), PPFdir (umol/m ² /s), Ep (W/m ²), E400-700 (W/m ²), Euv (W/m ²), Eb (W/m ²), Eg (W/m ²), Er (W/m ²), Efr (W/m ²), Eir (W/m ²), Ech-A (W/m ²), Ech-B (W/m ²), PAR (W/m ²), Erb Ratio, Erfr Ratio, KPARV, PUR (W/m ²), Transmittance (%) |
| Menu language | English (US), Chinese, English (GB) |
| Protection class (device) | IP56 |
| Power supply | 100 ... 240V AC 50/60 Hz |
| Connector type | Euro plug |
| Battery/battery | 1 x 3,7 V intern , Lithium-ion battery |
| Battery capacity | 4000 mAh |
| Operating conditions | -10 ... 40 °C , 70 %RH |
| Storage conditions | -20 ... 45 °C , 70 %RH |
| Dimensions (L x W x H) | 160 x 82 x 22 mm |
| Weight | 390 g |